#### DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES Office of Structural Materials

Quality Assurance and Source Inspection

Bay Area Branch 690 Walnut Ave.St. 150 Vallejo, CA 94592-1133 (707) 649-5453 (707) 649-5493



Contract #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

File #: 69.28

## WELDING INSPECTION REPORT

Resident Engineer: Siegenthaler, Peter **Report No:** WIR-022048 Address: 333 Burma Road **Date Inspected:** 07-Mar-2011

City: Oakland, CA 94607

**OSM Arrival Time:** 700 **Project Name:** SAS Superstructure **OSM Departure Time:** 1900 **Prime Contractor:** American Bridge/Fluor Enterprises, a JV

Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

**CWI Name: CWI Present:** Yes Lv Li Qing No **Inspected CWI report:** Yes N/A **Rod Oven in Use:** Yes No No N/A N/A **Electrode to specification:** Yes No Weld Procedures Followed: Yes No N/A N/A **Qualified Welders:** Yes No **Verified Joint Fit-up:** Yes No N/A N/A Yes N/A **Approved Drawings:** Yes No **Approved WPS:** No Yes No N/A **Delayed / Cancelled:** 

**Bridge No:** 34-0006 **Component:** OBG

#### **Summary of Items Observed:**

On this day CALTRANS OSM Quality Assurance(QA) Inspector Mr. Shrikant Utekar was present during the times noted above for observations relative to the fabrication of the SAS Superstructure being performed by Zhenhua Port Machinery Company (ZPMC) at Changxing Island in Shanghai, China. The QA Inspector observed and/or found the following:

**BAY #14** 

This QA Inspector randomly observed the following work in progress.

**OBG 14EAST** 

This Quality Assurance (QA) Inspector observed ZPMC qualified welder 066439 performing the Shielded Metal Arc Welding process on weld 004 located at PCMK SEG3019U. ZPMC QC Mr. Zhang Guo Hui was monitoring this welding operation. The welding variables recorded by QC appeared to comply with WPS-B-T-2233-ESAB.

This Quality Assurance (QA) Inspector observed ZPMC qualified welder 050232 performing the Shielded Metal Arc Welding process on weld 193 located at PCMK SEG3019P. ZPMC QC Mr. Zhang Guo Hui was monitoring this welding operation. The welding variables recorded by QC appeared to comply with WPS-345-SMAW-3G (3F)-Fcm-Repair-1. Weld repair report identified as B-WR20247.

This Quality Assurance (QA) Inspector observed ZPMC qualified welder 066326 performing the Shielded Metal

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Arc Welding process on weld 100 located at PCMK SEG3019AW. ZPMC QC Mr. Zhang Guo Hui was monitoring this welding operation. The welding variables recorded by QC appeared to comply with WPS-B-P-2212-B-u2-Fcm-1.

This Quality Assurance (QA) Inspector observed ZPMC qualified welder 066763 performing the Flux Cored Arc Welding process on weld 106 located at PCMK SEG3019AB. ZPMC QC Mr. Zhong Guo Hui was monitoring this welding operation. The welding variables recorded by QC appeared to comply with WPS-B-T-2233-ESAB.

This Quality Assurance (QA) Inspector observed ZPMC qualified welder 066236 performing the Flux Cored Arc Welding process on weld 002 located at PCMK SEG3019C. ZPMC QC Mr. Zhong Guo Hui was monitoring this welding operation. The welding variables recorded by QC appeared to comply with WPS-B-T-2233-ESAB.

This Quality Assurance (QA) Inspector observed ZPMC qualified welder 066733 performing the Flux Cored Arc Welding process on weld 243 located at PCMK SEG3019AZ. ZPMC QC Mr. Zhong Guo Hui was monitoring this welding operation. The welding variables recorded by QC appeared to comply with WPS-B-T-2231-ESAB.

This Quality Assurance (QA) Inspector observed ZPMC qualified welder 066163 performing the Shielded Metal Arc Welding process on weld 088 located at PCMK SEG3019N. ZPMC QC Mr. Zhang Guo Hui was monitoring this welding operation. The welding variables recorded by QC appeared to comply with WPS-B-P-2213-Tc-u4b-Fcm-1.

This Quality Assurance (QA) Inspector observed ZPMC qualified welder 070008 performing the Shielded Metal Arc Welding process on weld 046 located at PCMK SEG3019L. ZPMC QC Mr. Zhang Guo Hui was monitoring this welding operation. The welding variables recorded by QC appeared to comply with WPS-B-P-2212-Tc-u4b-Fcm-1.

This QA Inspector observed ABFC personnel performing Magnetic Particle testing on the back gouged area of the weld joint between EP3027C and X4676G. Weld number identified as SEG3019AG-035.

This Quality Assurance (QA) Inspector observed ZPMC personnel performing heat straightening, member identified as Anchor plate AP3007. Distortion appeared to be caused by welding. Weld number identified as SEG3019Z-008. ZPMC Quality Control (QC) inspector identified as Mr. Zhong Guo Hui was present to monitor the heat straightening process. The heat straightening appeared to comply with heat straightening Report HSR1 (B)-10117.

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.

# WELDING INSPECTION REPORT

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# **Summary of Conversations:**

No significant conversations were reported on this date.

#### **Comments**

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang, +(86) 1500 042 2372, who represents the Office of Structural Materials for your project.

<b>Inspected By:</b>	Utekar,Shrikant	Quality Assurance Inspector
Reviewed By:	Patterson, Rodney	QA Reviewer